Training chapters included in Autodesk Moldflow Insight 2010 Standard 1

Below is a list of chapters that will be covered during the Autodesk Moldflow Insight 2010 Standard 1 class with a brief description of the chapter content.

Chapter	Mesh types used	Description
Introduction to Synergy	All mesh types	Learn the many features of the Synergy user interface.
Quick Cool-Fill-Pack-Warp analysis	Dual Domain and 3D	Complete a project from importing an IGES file to exporting results.
Analysis workflow	All mesh types	Discusses Moldflow design philosophy, Design procedures. Uses flow charts to discuss optimization of Filling, Flow and Part.
Model requirements	All mesh types	Discusses the mesh characteristics necessary to have a good mesh. It discusses not only mesh errors such as aspect ratio, but also mesh density requirements.
Model translation and cleanup	All mesh types	Uses flow charts to show process, including all 3 mesh types. Use of local refinement and detailed description of meshing options. Discusses mesh diagnostics, mesh cleanup and when mesh is good enough. Practice includes using various tools to fix mesh problems, meshing parts at various densities to see the influence of mesh settings and meshing parts with various meshing issues
Gate placement	Dual Domain and 3D	Discusses gate placement guidelines and uses the gate placement analysis.
Molding window	Dual Domain	Describes the procedures for a molding window analysis. Has a flow chart describing the process. Concentrates on molding window plot and setting correct advanced parameters.
Results interpretation	All mesh types	Discusses results manipulation, general interpretation. Practice concentrating on display methods for each type of mesh.
Gate & runner design	Dual Domain	Describes typical gate and runner designs and how to model. Practice includes 8 cavity tool manually created, and Family tool created with wizard and runners balanced.
Basic packing	Dual Domain and 3D	Has definitions, how to set a profile, how to interpret results for Dual Domain and 3D.
Flow Analysis Process Settings	All mesh types	Discusses in detail all the advanced options for a flow analysis. Covers all 3D solvers and MP/Dual Domain capabilities.
Creating reports	Dual Domain	Shows ways to create reports and the 3 formats supported.
Moldflow Communicator	All mesh types	Shows capability of Moldflow Communicator. Shows how to create MRF and criteria files in Synergy.
Guided project	Dual Domain	Steps through in more detail (compared to the Quick CPW Analysis chapter) the entire Flow analysis process, from cleaning up a mesh, finding a gate location, solving flow issues, optimizing processing conditions, modeling and sizing the feed system and packing.

APPENDIX

Chapter	Mesh types used	Description
*Thermoplastics overview	Not applicable	Review important concepts regarding thermoplastic polymers (molding materials).
*Injection molding overview	Not applicable	Review of the injection molding process, flow behavior of thermoplastics in injection molds.
*Finite element overview	All mesh types	Review the finite elements used by Autodesk Moldflow Insight and how they are combined into different meshes. Also the assumptions used by the flow solvers for the different element types.
*Moldflow design principles	Not applicable	Review the Moldflow Design Principles to be used with Autodesk Moldflow Insight.
How to use help	None discussed	Shows how help is accessed and used.
Modeling tools	All mesh types	Concentrates on modeling regions, but some work with beams, and uses of local coordinate systems.
Introduction to Moldflow CAD Doctor	Not applicable	Shows how Autodesk Moldflow CAD Doctor can be used to fix and optimized the original CAD file.
Material searching and comparing	None discussed	Shows how to use the material searching capabilities of Synergy.
Job manager	Not applicable	Discusses the various features of the Job Manager in order to manage analyses efficiently.
Flow leaders and deflectors	Dual Domain	Discusses how to use flow deflectors and flow leaders to move the location of weld lines and other defects.
Using valve gates	All Mesh Types	Discusses valve gate control methods, and how to set up. Briefly discusses valve gates on 3D models.